

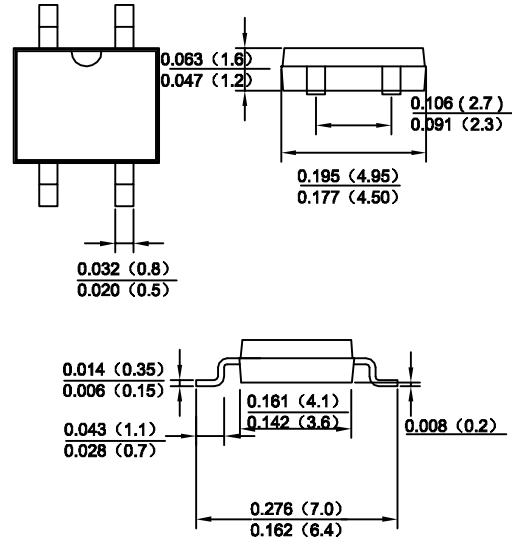
### Features

- Glass Passivated Die Construction
- Low leakage
- Ideal for printed circuit board  
Surge overload rating-30A peak
- Designed for Surface Mount Application
- Plastic Material-UL Flammability 94V-0

### Mechanical Data

- Case: MB-F, molded plastic
- Terminals: plated leads solderable per MIL-STD-202, Method 208
- Polarity: as marked on case
- Mounting position: Any
- Marking: type number
- Lead Free: For RoHS / Lead Free Version,

### MBF



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.  
Single Phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

| TYPE NUMBER                                                                                                           | SYMBOL                           | RMB1F      | RMB2F | RMB4F | RMB6F | RMB8F | RMB10F | UNITS |
|-----------------------------------------------------------------------------------------------------------------------|----------------------------------|------------|-------|-------|-------|-------|--------|-------|
| Peak Repetitive Reverse Voltage                                                                                       | V <sub>RRM</sub>                 | 100        | 200   | 400   | 600   | 800   | 1000   | V     |
| Working Peak Reverse Voltage                                                                                          | V <sub>RWM</sub>                 |            |       |       |       |       |        |       |
| DC Blocking Voltage                                                                                                   | V <sub>DC</sub>                  |            |       |       |       |       |        |       |
| RMS Reverse Voltage                                                                                                   | V <sub>RMS</sub>                 | 70         | 140   | 280   | 420   | 560   | 700    | V     |
| Average Rectified Output Current (Note 1)@T <sub>A</sub> =40℃<br>(Note 2)@T <sub>A</sub> =40℃                         | I <sub>o</sub>                   | 0.5<br>0.8 |       |       |       |       |        | A     |
| Non-Repetitive Peak Forward Surge Current 8.3ms<br>Single half sine-wave superimposed on rated load<br>(JEDEC Method) | I <sub>FSM</sub>                 | 30         |       |       |       |       |        | A     |
| Forward Voltage per element @IF=1.0A                                                                                  | V <sub>FM</sub>                  | 1.3        |       |       |       |       |        | V     |
| Peak Reverse Current @T <sub>A</sub> =25℃<br>At Rated DC Blocking Voltage @T <sub>A</sub> =125℃                       | I <sub>R</sub>                   | 5.0<br>500 |       |       |       |       |        | uA    |
| Maximum reverse recovery time (Note 3)                                                                                | T <sub>RR</sub>                  | 150        |       |       | 250   | 500   |        | ns    |
| Typical Junction Capacitance per leg (Note4)                                                                          | C <sub>J</sub>                   | 13         |       |       |       |       |        | pF    |
| Typical Thermal Resistance per leg                                                                                    | R <sub>θJA</sub>                 | 70         |       |       |       |       |        | ℃/W   |
|                                                                                                                       | R <sub>θJL</sub>                 | 20         |       |       |       |       |        |       |
| Operating and Storage Temperature Range                                                                               | T <sub>J</sub> ,T <sub>STG</sub> | -55to+150  |       |       |       |       |        | ℃     |

Note:1. Mounted on glass epoxy PC board with 1.3mm<sup>2</sup> solder pad.

2. Mounted on aluminum substrate PC board with 1.3mm<sup>2</sup> solder pad.

3. Reverse Recovery Test Conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A

4. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

Fig. 1 Output Current Derating Curve

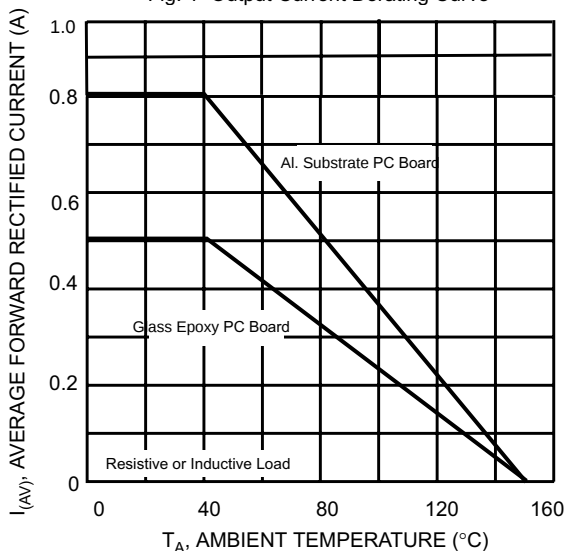


Fig. 2 Typical Forward Characteristics (per leg)

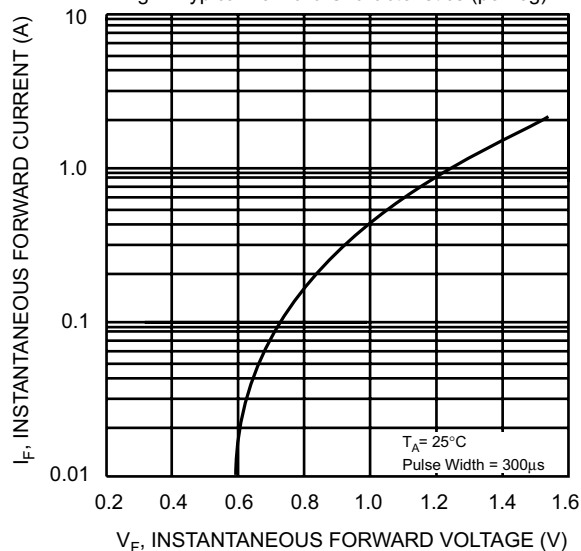


Fig. 3 Maximum Peak Forward Surge Current (per leg)

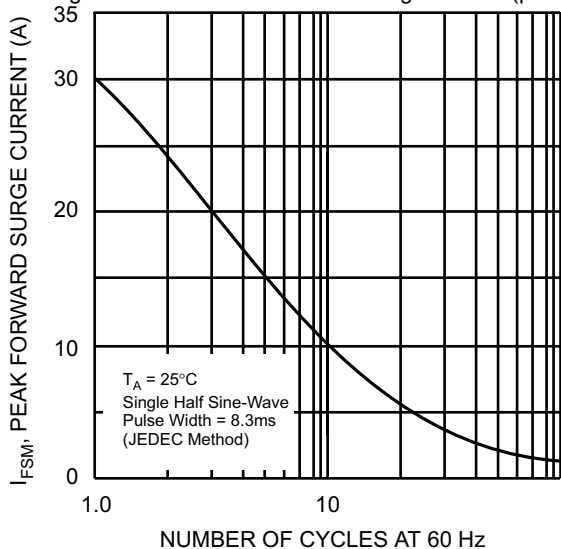


Fig. 4 Typical Junction Capacitance

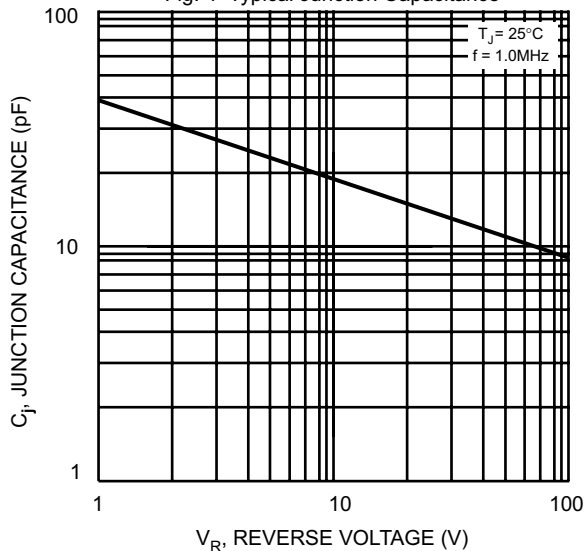


FIG.5 TYPICAL REVERSE CHARACTERISTICS

